DRAFT: POLICY PAPER ON REGULATORY FRAMEWORK FOR MOBILE BANKING IN PAKISTAN

Banking Policy & Regulations Department
State Bank of Pakistan

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Aims to serve as the starting point for a more elaborate discussion on the issue, this Policy Paper presents our draft recommendations for modifications in the regulatory environment to facilitate branchless/mobile banking as a mean to extend financial services outreach to poor and under-served strata of the society in an efficient and cost effective manner. Comments and suggestions are welcome. Please email comments to ali.asad@sbp.org.pk or javaid.ismail@sbp.org.pk

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Executive Summary

Branchless/mobile banking models provide efficient and cost effective ways to extend financial service outreach to the un-banked communities. Provision of enabling regulatory environment by careful risk-reward balancing is necessary to use such models. These models can be classified into three broad categories – Bank-Focused, Bank-Led and Nonbank-Led. Bank-focused model use non-traditional low-cost alternate delivery channels (ADCs) to provide banking services to existing banking customers. Examples include automatic teller machines (ATMs), internet banking, mobile phone banking etc. **Other Models** offer a significantly cheaper alternative to conventional branch-based banking by using delivery channels like retail agents, mobile phone etc. and can be used to substantially increase the financial services outreach These models can be **bank-led** (where customer account relationship rest with the bank and nonbank serves as the delivery channel) or **Non-bank Led** (where Bank does not come in picture and the Non-Bank/Telco performs all the functions).

Risks Involved in branchless banking can be broadly classified into Agent-Related and E-Money Risks. **Agents Related Risks** are common to all transformational models and arise from substantial outsourcing of customer contact to retail agents, who may be operating in hard-to reach or dangerous areas, lack physical security systems and specially trained personnel. When retail agents are used to provide banking services, five of typical banking risk categories—credit, operational, legal, liquidity and reputational—take on special importance beside elevated concerns regarding consumer protection and compliance with rules for AML/CFT. **E-Money Risks** are typical to Nonbank-Led model and relate to imprudent management of repayable deposits collected from retail customers by Non-bank entities that are not subjected to prudential regulation and supervision.

Regulatory issues, from a financial regulator's perspective, concerning mobile banking are related to consumer protection, effect of m-banking on stability of banking & payment systems, legal definition of deposit, e-money regulations, provisions for agency agreements and AML/CFT laws.

Bank-Focused model signify use of ADCs by banks as a cheap and convenient way to provide banking services to their existing customers. This model can be used within existing regulatory frame work and many banks have already started using it in varied extent.

Bank-Led (including JV based) Model is prone to agent-related risks. These risks can be mitigated by making banks fully liable for actions of their agents and by giving regulators power to review agents' record of bank-related transactions. "Guidelines for Mobile Banking" covering various aspects of this model may be issued for the purpose. Risk-based approach to Customer Due Diligence (CDD) should be used to unleash true potential of this model.

As regards **Nonbank-Led Model**, the non-banks in Pakistan are subject to less stringent regulations which may lead to significant risks w.r.t transaction security, documentation and AML/CFT beside e-money related risks. For these reasons, Nonbank-Led model may only be allowed at a later stage after we have sufficient experience in mitigating agent related risks using bank led model and need to think about mitigating e-money related risks only. At that stage we may do so by making regulatory changes giving these entities special status of some sort of quasi-bank/remittance agent etc. requiring them to meet pre-specified standards of transparency, financial strength and liquidity and to follow certain activity guidelines.

A careful, step-by-step approach, starting from basic bank led models and gradually adding more activities as experience matures is the best approach.

Introduction

Extending the outreach of financial services to the un-banked/underserved/areas and people - belonging mostly to the low income strata of the society - in a cost effective manner is viewed as a big step towards poverty alleviation. Emerging advances in information and communication technologies and their widespread usage offer tremendous opportunity to achieve this much desired goal by making available non-traditional ways of providing financial services. However these alternate delivery channels should be looked into prudently and adopted only after careful balancing of risks and rewards. As regulators our role is not to try to eliminate these risks, but to balance them appropriately with the benefits of using these new channels and to create an enabling regulatory environment where new technologies are put to use on the efficient frontiers of the risk-return tradeoff.

This Policy Paper presents a brief overview of various models of mobile/branchless banking followed by a discussion of the risks attached to each model and finally, an analysis – from a financial regulator's perspective - of the regulatory issues and required changes in regulations to implement these models. For preparing this paper we used information from several studies conducted on other countries' experiences with mobile banking and websites of existing mobile banking services providers in those countries besides data from SPB payment systems department, banking laws, regulations & policies, and other sources.

Brief Overview of the Models of Branchless Banking

Branchless banking represents a new distribution channel that allows financial institutions and other commercial actors to offer financial services outside traditional bank premises. A wide spectrum of branchless banking models is evolving. These models differ primarily on the question that who will establish the relationship (account opening, deposit taking, lending etc.) to the end-customer, the Bank or the Non-Bank/Telecommunication Company (Telco). Another difference lies in the nature of agency agreement between bank and the Non-Bank. Models of branchless banking can be classified into three broad categories - Bank Focused, Bank-Led and Nonbank-Led.

Bank-Focused Model emerges when a traditional bank uses non-traditional low-cost delivery channels to provide banking services to its existing customers. Examples range from use of automatic teller machines (ATMs) to internet banking or mobile phone banking to provide certain limited banking services to banks' customers. This model is additive in nature and can be seen as modest extension of conventional branch-based banking.

Bank-Led Model offers a distinct alternative to conventional branch-based banking in that customer conducts financial transactions at a whole range of retail agents (or through mobile phone) instead of at bank branches or through bank employees. This model promises the potential to substantially increase the financial services outreach by using a different delivery channel (retailers/ mobile phones), a different trade partner (Telco / Chain Store) having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank based alternatives. Bank led model may be implemented by either using correspondent arrangements or by creating a JV between Bank and Telco/non-bank. In this model customer account relationship rests with the bank

Nonbank-Led Model is where bank does not come in picture (except possibly as a safe-keeper of surplus funds) and the Non-Bank/Telco performs all the functions.

Both Bank-Led and Nonbank-Led models are transformational in scope but the former is much less risky. Table 1 summarizes various models of branchless banking.

Table 1: Models of Branchless Banking

Model	Bank Focused	Bank Led / Banking Agents	Bank-Led/ Joint Venture	Nonbank Led
Scope	Additive	Transformational	Transformational	Transformational
Account	Bank	Bank	Bank	Telco/ NB
Cash in /out	Bank	Bank/ NB	Bank/NB	Telco/ NB
Brand	Bank	Bank / Joint	Joint /non-bank or telco	Telco/NB
Access points	Bank	Bank	Bank + alternative	Telco + other
Carrier/ Gateway	Any	Any/Telco	Telco	Telco
Examples	MNet/ 1Link, Other SMS Banking[1] Services	Brazilian model[2] of "Banking Correspondents"	MTN Mobile Money[3], Wizzit[4] (South Africa)	Globe[5]; Celpay [6](Zambia)

[1] In Pakistan ATM banking has taken off by two interlinked switches. Many banks also offer limited banking services like balance enquiry, mini-statement etc over mobile phone and restricted fund-transfer over internet.

[2] In Brazil, private and state-owned banks deliver financial services through retail agents including small supermarkets and pharmacies, post offices, and lottery kiosks (Kumar et al. 2006).

[3] MTN Banking of South Africa is joint venture between Standard Bank and MTN Mobile offering the MobileMoney account which gives customer access to limited banking facilities, using Wap enabled cellphone. (http://www.mtnbanking.co.za/)

[4] WIZZIT is a cellphone-based banking facility provider operating as a division of South African Bank of Athens. It does not require users to have a prior bank account and is compatible with early generation cell phones popular in low-income communities. In addition to being able to conduct cellphone-to-cellphone transactions, WIZZIT account holders are issued Maestro debit cards that can be used at any ATM or retailer. WIZZIT charges per-transaction fees that range from 99c (USD 0.15) to R4.99 (USD 0.78) and does not charge a monthly fee nor require a minimum balance. There are no transaction limitations - the service is purely pay-as-you-go. (http://www.nextbillion.net/activitycapsule/wizzit)

[5] In Philippine, Globe Telecom's G-Cash service is an e-money account tied to a mobile phone subscriber information module (SIM card). The account can be loaded and unloaded by depositing or withdrawing cash at a

Model	Bank Focused	Bank Led / Banking Agents	Bank-Led/ Joint Venture	Nonbank Led
Features	Minimum new risks	Low risk, high potential to increase access to unbanked.	Increased network security	Increased network security

Risks Involved[7] in branchless banking can be broadly classified into Agent-Related and E-Money Risks.

Agents Related Risks arise from substantial outsourcing of customer contact to retail agents. From a typical banking regulator's perspective, entrusting retail customer contact to the types of retail agents used in both the bank-led and nonbank-led models would seem riskier than these same functions in the hands of bank tellers in a conventional bank branch. These retail agents may operate in hard-to reach or dangerous areas & they lack physical security systems and specially trained personnel. The lack of expert training may seem a particular problem if retail agents' functions range beyond the cash-in/cash-out transactions of typical bank tellers to include a role in credit decisions.

Banking regulation typically recognizes multiple categories of risk that bank regulators and supervisors seek to mitigate. Five of these risk categories—credit risk, operational risk, legal risk, liquidity risk, and reputation risk—take on special importance when customers use retail agents rather than bank branches to access banking services. The use of retail agents also potentially raises special concerns regarding consumer protection and compliance with rules for combating money laundering and financing of terrorism. These Risks are further explained in Appendix - 1.

E-Money Risks relates to acceptance of repayable funds from retail customers by Non-Bank entities that are not subjected to prudential regulation and supervision. Risk is that an unlicensed, unsupervised Non-Bank will collect repayable funds from the public in exchange for e-money and will either steal these funds or will use them imprudently, resulting in insolvency and the inability to honor customers' claims.

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wide range of retail agents and the mobile operator's own dealers. Customers can store cash (in the form of e-money), send funds from person to person, pay bills and make loan repayments, and purchase goods at shops using the e-money value in their G-Cash accounts. (Lyman et al., 2006)

[6] Celpay, allows registered customers to use their cell phones for merchant transactions, monthly bill payments, and fund transfer between participating phones using a secure SIM card, adding a menu to their cellphones that facilitates the payments and providing access to their Celpay accounts. Money can be added to Celpay accounts via transfers from a bank account, or by depositing cash or a check at a participating Celpay partner bank. Transfers made using Celpay are free to the payer, while the payee is charged a small fee for each transaction. Celpay, recently purchased by South African FirstRand bank, is currently functioning in Zambia and the Democratic Republic of Congo (DRC). (http://www.nextbillion.net/activitycapsule/1873)

[7] Lyman et al. 2006

Legal & Regulatory Issues:

Existing Regulatory Framework for Financial Sector in Pakistan

Under the prevalent legislative structure the supervisory responsibilities in case of Banks, Development Finance Institutions (DFIs), and Microfinance Banks (MFBs) fall within legal ambit of State Bank of Pakistan while the rest of the financial institutions[8] are monitored by other authorities such as Securities and Exchange Commission.

Banking Companies Ordinance, 1962 (BCO) and the State Bank of Pakistan Act, 1956 (SBP Act) provide the main legal structure under which the banking system of Pakistan operates[9]. Banking Companies are licensed under section 27 of BCO and in terms of the Licensing Criteria for Commercial Banks. Once licensed, banks are scheduled under section 37 (2) of SBP Act after they meet strict requirements of capital adequacy, cash and liquid reserves maintenance, transactional record keeping, and upholding financial and managerial discipline. They are also required to establish internal control, internal audit and compliance systems. Banks are under vigilant supervision by SBP and are required to follow the guidelines/rules/regulations issued by it in letter and spirit or be ready to face severe penalties (upto the extent of a change of management or winding up of business). In return, they are allowed to take deposits for the purpose of lending or investment and can avail SBP discount window, lender of last resort facilities etc. In addition, SBP also licenses Microfinance Banks under the Microfinance Institutions Ordinance (2000-2001) in terms of the licensing criteria for micro-finance banks. Commercial Banks are also allowed to undertake microfinance banking activities through a range of options for conducting the microfinance business. Further, SBP is also looking out for options for introducing Islamic Microfinance by banks.

Issues for Financial Sector regulators:

While attempting to increase financial services outreach, regulators need to think over many issues. In a report commissioned by Department for International Development (DFID), Porteous[10] very neatly summarizes issues for financial regulators concerning mobile banking in the form of 6 questions. Here we first discuss these questions in the context of Pakistan and then discuss our regulatory environment with specific reference to various models of branchless banking.

Are consumers adequately protected?

Appropriate consumer protection against risks of fraud, loss of privacy and even loss of service is needed for establishing trust among consumers which is the single most necessary ingredient for growth of m-banking. These risks increase when agents are involved and reach to a maximum in Nonbank-led model. As we will be dealing with a large number of first time customers with low

[8] Non-banking Finance Companies (NBFCs) (leasing companies, Investment Banks, Discount Houses, Housing Finance Companies, Venture Capital Companies, Mutual Funds), Modarabas, Stock Exchange and Insurance Companies.

[9] There are other laws applicable to certain financial institutions or groups of institutions, like Bank Nationalization Act,1974, Microfinance Institutions Ordinance, 2001, etc.

[10] Porteous D. 2006

financial literacy the risks become even higher. These risks can be mitigated by entering into mobile banking activities through known, already regulated players (banks) and by issuing adequate guidelines regarding privacy protection, network security and complaint redressal.

How do m-payments affect the stability of the banking system and national payment system?

Soundness and stability of the banking system and national payment system are central to our mandate as financial regulator of the country. However, the question whether or not mobile banking, particularly at its initial stage, becomes a systemically important payment system, needs deliberations. Answer to this question helps in determining the timing and extent of applicability of Core Principals for Systemically Important Payment Systems to mobile banking.

Does the law distinguish adequately between payments and deposits?

BCO 62 defines deposits implicitly in the definition of 'Banking'[11] and further while explaining section 27[12]. Under existing law, it is the purpose (for investment or borrowing) and not the mode of payment (cash or electronic) that defines deposit. The proposed Draft Banking Act 2006 does contain a more comprehensive definition of deposit.

Does the law provide for e-money issuance? By which entities?

Issuance of e-Money[13] is included in the permissible banking activities in the proposed Banking Act 2006 (though the act does not define e-money). Electronic Transaction Ordinance, 2001 permits[14] an appropriate authority to provide for or accept payment in electronic form. The Electronic Fund Transfer and Payment System Act is yet to be enacted in Pakistan to frame a relevant legal structure.

[11] BCO 62 defines **banking** to mean "the accepting, for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft, and order or otherwise."

[12] "deposits of money" shall be deemed to include money called, invited or collected for the purpose, or declared object, of investment or borrowing in any business carried on, or proposed to be carried on, by the company, firm or person by whom, or on whose behalf, such money is called, invited, collected or received irrespective of the nature of the relationship, arrangement or terms offered or provided by such company, firm or person to the person making the investment, deposits of money or payment or of the basis or understanding or which the money is so called, invited, collected or received. (Explanation – Section 27A, BCO 1962)

[13] E-money, according to the Basel Committee's definition, is "a stored value or prepaid product in which a record of the funds or value available to the consumer for multipurpose use is stored on an electronic device in the consumer's possession." A legal definition of electronic money is included in Article 1 of European Parliament and Council Directive 2000/46/EC (OJ L 275 of 27 October 2000, pp 39-43). The definition states that "electronic money shall mean monetary value as represented by a claim on the issuer which is: (i) stored on an electronic device; (ii) issued on receipt of funds of an amount not less in value than the monetary value issued; (iii) accepted as means of payment by undertakings other than the issuer". (Bank for International Settlements 2004).

[14] Section 16(2)(c)(iii), Electronic Transaction Ordinance, 2001.

Is there provision for agencies for cash withdrawal and deposits?

There is no clear provision for agencies for cash withdrawal and deposits under existing law. However, BCO, 1962[15] permits banks to pay commission to a cashier-contractor. The term cashier-contractor is not defined, but it may be interpreted as permission to enter into agency agreement with third parties regarding handling money on behalf of the bank. We may issue certain guidelines for such agency arrangements. An alternate arrangement of cash deposit/withdrawal (person to person mode) which appears permissible under existing legal framework is discussed in Table 3.

How do AML/CFT regulations affect account opening and cash transactions?

A risk-based approach should be adapted to customers' due diligence (CDD) requirements. This is already in practice for microfinance banking[16]. Proper guidelines in this regard needs to be issued.

Models of Branchless Banking and Regulatory Issues

Bank-Focused Model: In this model the technological/physical infrastructure of a mobile operator / retailer is used to provide some basic banking services like balance enquiry, A/c to A/c fund transfer, payments for goods / services at merchant outlets using bank account (through ATM/ Debit card / Phone SMS etc). Most of these services are already being provided by banks and are covered under existing regulations. So this model poses no specific regulatory issues. Evidence suggests that this type of activity is already gearing up in Pakistan. Table 2 presents some indicators in this regard.

Table 2: Growth of Electronic Payments and use of Alternate Delivery Channels in Pakistan[17]

	Jul-Sep 2005	Jul-Sep 2006
Number of Retail Transactions (000)		
Electronic Based	15,611	21,723
Paper Based	66,572	79,677
No of installed ATMs	1,142	1,729
transactions through ATMs (99% cash withdrawals)	10.58 million valuing 60.778 billion	11.4 million valuing Rs.70.3 billion
Funds Transfer through ATMs	31 thousand transactions valuing Rs.278.72 million	43 thousand transactions valuing Rs.1,717 million
Online branches	3,030 out of Total 7077 (43%)	3,761 out of total 7,462 (50%)

[15] Section 11 (1) (b) (ii) (b) of Banking Companies Ordinance, 1962.

[16] Microfinance Institutions are already allowed to extend micro-credit by establishing identity through other appropriate means in far-flung and remote areas where people, particularly women, don't have identity cards as per Prudential Regulation No. 17 for microfinance banks/institutions.

[17] Source: Retail Payment Systems of Pakistan, 1st Quarterly Report 2006-2007.

No of Card Holders (000)		
Credit	1,118	1,679
Debit	2,197	3,486
ATM only [18]	175	87

Bank-Led Model: In this model, agents like mobile operators and retail outlets (departmental stores, mobile card sellers, small shop-keepers etc.) generally play a significant role in provision of banking services to end customers. This model is, therefore, prone to agent-related risks. These agent-related risks can be mitigated by making banks fully liable for actions of their agents and by giving regulators power to review agents' record of bank-related transactions. "Mobile Banking Guidelines" may be issued for banks. These guidelines should include "Minimum Requirements for setting up a Grievance Redressal Function", "Security Requirements for the transaction processing and recording system (capable of producing an undeniable proof of transaction in case of any dispute)", "Risk-Based Customers Due Diligence (CDD) Requirements" etc. Separate guidelines may also be issued for "Selecting Banking Correspondents/Agents" for banks who want to take up agent-based mobile banking.

Beauty of this model is that it can be implemented incrementally starting from most basic activities and gradually adding more and more activities as market participants as well as regulators become more experienced. An activity-based analysis of regulatory issues and required changes for broad categories of banking activities is summarized in Table 3.

Table 3: Regulatory issues and required changes - Bank-led & JV-based Models

Function/Role:	Performed By:	Legal Issues and changes required
Product or Service Designing	Bank	No Issue
	Non-Bank	Non-Bank may not be fully aware of existing legal requirements. This issue may be resolved by making bank responsible for the product legality no matter who designs it in the first place.
Product Marketing	Bank / Non-Bank	No issue.
A/c Opening	Bank	No issue. However, to extend outreach to lower strata of society a risk based approach to CDD requirements should be followed. Various account types may be introduced each requiring a different level of KYC/AML screening. Transaction volume/turnover limits may vary for each account type. Technology at the back-end should be capable of online monitoring of these limits to avoid any breaches.
	By Retail Outlet but ultimately verified	May led to compromised KYC requirements. Retailers may open account without actually ever meeting their

[18] Negative growth of ATM only cards is due to the fact that these cards are being replaced either by debit cards or credit cards.

Function/Role:	Performed By:	Legal Issues and changes required
	by bank	customer. Even when necessary ID documents are attached to the A/C opening form, the actual person may not know that an a/c has been opened in his/her name. Guidelines for "Selecting Banking Correspondents/ Agents" should be issued prior to allowing this activity
Balance enquiry	Bank through retail channels / Mobile phones, POS	Adequate guidelines to ensure customer privacy be issued and adherence of all players to these guidelines must be ensured.
Cash Deposits / Withdrawals	Bank at its branches / ATM locations	No issue
	Person to person	In this model, to affect a deposit to his account, a mobile a/c holder (A) may approach some store/retailer (B) (also treated as just another a/c holder). A passes on some cash to B, who in turn, transfers an equivalent amount (possibly after deducting some agreed service charges) from his (B's) account to A's a/c. Both parties get SMS from the bank confirming the transaction. Reverse of this process may be executed to affect a cash withdrawal. These types of transactions facilitate deposit/withdrawal of funds without being defined as deposit taking activity.
	Banking Correspondents	Guidelines for "Selecting Banking Correspondents" should be issued prior to allowing this activity For both person-to-person as well as agent based transactions, nature / extent and volume of transactions must be decided beforehand by the regulators specifying volume and turnover limits on each type of transactions.
Money Transfers (person to person, person to business and vice versa).	Bank at its branches/ATM locations or through mobile phone	No issue as both sender and recipient of funds are account holders and the transactions are subject to AML/CFT guidelines.
	Banking Correspondents	Guidelines for "Selecting Banking Correspondents" should be issued prior to allowing this activity
Lending Activities	All Key activities like product designing, customer acquisition, credit documentation and initiation etc. are done by the bank and correspondents are used only for disbursement and collection of funds.	No specific issues related to lending activities arise as the banking correspondents' role is reduced to deposit/ withdrawal/fund-transfer activities which are separately discussed above. Further, there is no harm in taking input in product design from non-bank partners (who may have greater knowledge of the target customers) as long as final responsibility lies with the bank.

Function/Role:	Performed By:	Legal Issues and changes required
	Correspondents are involved in lending activities like marketing, customer identification, loan documentation, disbursement etc.	Banks should be held responsible for all activities undertaken by the correspondents. They may be required to sign proper agency agreements with the banking correspondents involved in lending activities in line with the relevant guidelines and may be required to impart necessary training to the correspondents' staff before undertaking these services.

Nonbank-Led Model:

In this model, customers do not deal with a bank, nor do they maintain a bank account. Instead, customers deal with a Non-Bank firm—either a mobile network operator or prepaid card issuer—and retail agents serve as the point of customer contact. Customers exchange their cash for e-money stored in a virtual e-money account on the non-bank's server, which is not linked to a bank account in the individual's name.

This model is riskier as the regulatory environment in which these non-banks operate in Pakistan does not give much importance to issues related to customer identification, which may lead to significant AML/CFT risks. Bringing in a culture of KYC to this segment will be a major challenge. Further the non-banks are not much regulated in areas of transparent documentation and record keeping which is a prerequisite for a safe financial system. Regulators also lack experience in the realm. For these reasons, allowing nonbank-led model to operate will be an unnecessarily big leap and an unjustifiably risky proposition. However this model may be allowed at a later stage after we have sufficient experience in mitigating agent related risks using bank led model and need to think about mitigating only e-money related risks.

To mitigate the e-money risks (which are peculiar to Nonbank-Led model only), necessary changes in the existing regulations are required. So, for implanting this model we should start by bringing Non-Banks under financial-regulatory net by giving these entities special status of some sort of quasi-bank/remittance agent etc. Grant of this status should depend upon meeting pre-specified standards of transparency, financial strength and liquidity. There should be clear, well-defined limits on nature, type and volume of transactions that such entities can undertake. To avoid insolvency, these entities may be required to deposit their net e-banking surplus funds with scheduled banks meeting certain minimum rating criteria. They should also be told to follow clear guidelines for AML/CFT and to establish a well-defined and efficient complaint redressal mechanism.

Specific Changes Needed in Existing Regulations

Banking Companies Ordinance 1962 (BCO)

As long as the mobile banking activities are performed by a banking company (Bank-focused or bank led), BCO is not violated. No change may, therefore be required in the BCO. On the other hand, Nonbank-Led model clearly violate the BCO as in that case Non-Banks would be accepting 'repayable' deposits. If we like to pursue Nonbank-led model, we should find a way to grant the Non-Banks some specific status to avoid their classification as a banking company. A similar workaround was found in Philippine by according Globe Telecom and SMART a rather loosely defined status of "Remittance Agent"[19]. In Pakistan, Microfinance Institutions Ordinance, 2001 also defines Microfinance Institution as a deposit taking entity which is not a Banking Company[20]. The banks may be allowed to establish banking agent relationships with other market participants (Telcos/others) after issuing specific guidelines in this regard.

Prudential Regulations

If the bank-led model is followed, prudential regulations relating to 'Know Your Customer (KYC)', 'Anti Money Laundering (AML)' and 'undertaking of cash payments outside the bank's authorized place of business' need modifications.

Regulations M-1 (KYC) and M-2 (AML) describe 'the minimum identification / introduction requirements for taking in a new customer' and 'measures to safe guard against Money Laundering activities' respectively. To facilitate rapid take-off of mobile banking and to extend its outreach to the unbanked communities, we may consider adopting a risk-based KYC system where identification requirements vary according to the nature of account operations. Accounts with restricted transaction volume/turnover limits should have lower KYC requirements. Similarly, requirements for ascertaining customer's status and his source of earnings (M-2(b)) may be relaxed for these restricted accounts. Microfinance Institutions are already allowed to extend micro-credit by establishing identity through other appropriate means in far-flung and remote areas where people, particularly women, don't have identity cards[21]. Appendix-2 presents reduced AML / KYC requirements as adopted by other countries to extend financial services outreach.

Regulation O-1 allows banks to facilitate cash withdrawals through authorized merchant establishments at various point of sale (POS) upto a maximum limit of Rs. 10,000. This regulation may be modified to include cash deposit facilitations upto a certain maximum limit (not exceeding the per transaction limit of that particular account holder) using similar arrangements.

In case the mobile banking activities are performed under a Nonbank-led model, these Non-Banks should first be given some special status and then either a special set of prudential regulations specific to them be framed or modification in existing prudential regulations be made.

[19] Bangko Sentral ng Pilipinas. 2004. "Circular 471, Section 3." Bangko Sentral ng Pilipinas. (http://www.bsp.gov.ph/regulations/regulations.asp?type=1&id=116)

[20] Microfinance Institutions Ordinance, 2001 Sections 2 and 3.

[21] Prudential Regulations No. 17 for microfinance banks/institutions (http://www.sbp.org.pk/publications/prudential/micro_prs.pdf)

Broad steps needed for implementing various models of branchless banking are summarized in Table 4.

Table 4: Regulatory Steps Needed to Implement Various Models of Branchless Banking

Model	Regulatory Steps Needed for Implementation
Bank-Focused (Additive) Model	1. No specific steps are needed. Necessary requirements to mitigate risks posed by this model (w.r.t. customers' privacy and data security etc.) are in place and banks are bound to comply with the same. However, it would be prudent to issue mobile banking guidelines related to customer privacy, transaction security and complaint redressal.
Bank Led Model	1. Mobile Banking Guidelines for Banks should be issued. These guidelines should include minimum requirements for; a. Setting up Grievance Redressal Function b. Security of the Transaction Processing and Recording System c. Customer Relationship levels (transaction and turnover limits for various account types) d. Risk-Based Customers Due Diligence (CDD) Requirements 2. Agent assisted mobile banking services may be allowed after; a. Making banks fully liable for actions of their agents. b. Giving regulators power to review agents' record of bank-related transactions. And after c. Issuing guidelines for; • Selecting Banking Correspondents/Agents. • Cash deposit and withdrawal operations using agents. • Lending operations using agents.
Nonbank Led Model	1. Non-banks should be brought under financial regulatory net by giving these entities special status of some sort of quasi-bank/remittance agent etc. This may be done either by amending BCO or by enacting some special law. 2. Law should define; a. Supervisory structure for such entities. If more then one supervisor are involved (SBP/PTA/SECP), clear division of authorities and responsibilities should be made. b. Minimum requirements w.r.t transparency, financial strength and liquidity for obtaining this status. c. Permissible activities for such entities (clear, well-defined limits on nature, type and volume of transactions) d. Requirement to deposit net e-banking surplus funds of such entities with scheduled banks meeting certain minimum rating criteria. 3. Supervisory agency defined under law (preferably SBP) should issue specific guidelines covering various aspects of the business especially, AML/CFT, customer privacy, data security, disaster recovery and business continuity, risk management and complaint redressal etc.

Roadmap for Extending Financial Services Outreach

Prudence demands a careful, step by step approach to ensure success in extending financial services outreach to the un-banked/under-served people. Identification of a clear roadmap is necessary. Important milestones of such road map are suggested here which may be adopted after necessary improvements, especially from the business and marketing perspective. We may also look into the possibility of running a pilot project in some specific region/city or through some specific players (e.g. microfinance banks who will be more suited to deal with the low balance accounts). Desired timeframe for achieving each milestone and the fallback options for undesired eventualities may also be decided.

1. **Bank Led model be allowed for deposit/withdrawal/ fund-transfer activities.**
   a. Banks be made fully liable for all mobile banking activities
   b. Guidelines for Mobile Banking and for Agent-assisted Banking be issued.
   c. Efforts be made to bring down transaction costs.

2. **Banks / Institute of Bankers in Pakistan (IBP) or other private parties be motivated to offer low-cost trainings to banking correspondents in the areas of;**
   a. General Mobile banking Services
   b. Consumer lending
   c. Microfinance
   d. Agricultural lending etc.

3. **Lending Activities be added to the mobile banking (Relevant Guidelines be updated to include lending activities).**

4. **Nonbank-led model be allowed for deposit/withdrawal and payments for services/purchases only.**
   a. Regulatory Structure to license quasi-banks to conduct specific limited subset of banking activities be put in place.
   b. E-money law be put in place.
   c. Supervisory responsibilities for these quasi-banks be defined.
   d. Guidelines for quasi-banks be issued.

5. **Range of financial services performed by quasi-banks be widened gradually to include person-2-person fund transfers after they get some experience in AML/CFT.**

Conclusion

Bank-Focused model, though less risky, does not offer much when it comes to extending financial service outreach to the poor and unbanked. Both Bank-Led and Nonbank-Led Models offer a greater potential to achieve this objective. These models, however, vary in their potential as well as risks. **The decision as to which model must be adopted should be made after carefully weighing the risk-return tradeoff. A careful approach may be adopted to start with the less risky bank-led model and gradually adding more options as the players and stakeholders become more experienced. Once a model of branchless banking is decided upon, work towards creating an enabling regulatory environment for implementation of that model should start.** Many components of such an environment are already in place if bank-led model is adopted. However, Clear guidelines regarding various aspects of allowable activities should be issued to avoid uncertainties. Further, a forceful eradication of any unlawful and unauthorized services and offerings (generally provided by unlicensed players) - which may sprout up - is a must to promote and safeguard the interest of genuine players (who will be investing in the new technologies) and the overall system.

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Appendices

Appendix 1: Banking Risks Relevant to Agent-assisted Branchless Banking Models[22].

Credit risk. Credit risk, simply stated, is the risk that one party to a financial transaction will not receive the money he or she is owed when it is due. When banking transactions do not settle immediately, and when additional parties are interposed between the customer and the bank, opportunities for credit risk multiply. For example, when a customer makes a deposit at a bank branch, she receives a deposit receipt immediately and can be fairly certain that the funds will be credited to her account and will be available for withdrawal when desired (assuming the bank is solvent and liquid). But when a customer makes a deposit into her bank account through a retail agent, even if she receives a receipt immediately, she bears the risk that the transaction is not communicated to the bank. Her account may not be credited. On the other hand, when the retail agent processes a cash withdrawal for a customer, it is the retail agent who takes credit risk—the risk that the bank won't reimburse him the cash he disbursed from his till. Institutions face credit risk with agent-assisted branchless banking whenever they must collect customer deposits or payments from their retail agents. Obviously, they also face credit risk whenever they decide to grant a customer a loan, and this latter form of credit risk may be enhanced in the agent assisted branchless banking context if the bank has outsourced some or all aspects of loan underwriting or collection to its retail agents.

Operational risk. Operational risk refers to potential losses resulting from "inadequate or failed internal processes, people and systems or from external events." For banks and Non-Banks that use retail agents and rely on electronic communications to settle transactions, a variety of potential operational risks arise. For example, customers or retail agents could commit fraud, or a bank's equipment or other property could be stolen from a retail agent's premises. Financial loss for banks or Non-Banks (and also potentially for customers) can also occur from data leaks or data loss from hacker attacks, inadequate physical or electronic security, or poor backup systems. Anecdotal evidence from Brazil, which has the longest track record with agent-assisted branchless banking, suggests that operational risk is significant. Banks in Brazil have reported losses because of retail agent fraud and robberies, which reportedly occur with great predictability when word gets around that a particular agent is handling an increased volume of cash.

Legal risk. Financial service providers will invest in a new delivery model only if they can predict and manage how relevant laws, regulations, and legal agreements will be applied and enforced, and how these things may change over time. In the countries studied, the banks and Non-Banks involved undoubtedly devoted significant effort to researching the relevant laws and regulations before investing in agent-assisted branchless banking approaches, and in most cases, they also consulted with regulatory authorities to understand better how authorities were likely to apply existing rules to the new model. But because regulators have had little experience with both models and are still adjusting existing rules to address them (or have yet to begin this process),

[22] (Lyman, et al. 2006)

some level of legal and regulatory uncertainty and ambiguity for both the banks and Non-Banks (and to a lesser extent also for retail agents) remains. Once a model becomes widely used in a country, these uncertainties and ambiguities could take on a systemic dimension if, for example, several banks with significant operations conducted through retail agents suddenly face an unfavorable interpretation that challenges their authority to transact business through retail agents or the enforceability of related legal agreements.

Liquidity risk. Retail agents - especially those that are relatively small, unsophisticated and remote - may not have enough cash to meet customers' requests for withdrawals and may lack experience in the more complex liquidity management required for offering financial services. To manage liquidity effectively, retail agents must balance several variables, including turnover of cash, ease of access to the retail agent's bank account, and processing time of transactions, among others.

Reputation risk. When retail agents underperform or are robbed, banks' public image may suffer. Many operational risks mentioned (such as the loss of customer records or the leakage of confidential customer data) also can cause reputation risk, as can liquidity shortfalls in the retail agent's cash drawer. The prospects for damage to the financial institution's reputation from problems of this sort should not be underestimated, because many retail agents may be inexperienced in providing financial services, may not be accustomed to maintaining adequate cash to settle customer withdrawals, and may lack the physical security to protect the increased levels of cash they will have on hand if things are going well. Moreover, reputation risk can spread from one bank or Non-Bank to another and take on systemic dimensions. In South Africa, mobile phone banking providers expressed concern that if even one young initiative failed, it could jeopardize customers' trust in the entire mobile phone banking business.

Consumer protection, including resolution of consumer grievances. Obviously, any of the foregoing categories of risk triggers consumer protection concerns if the resulting loss falls on customers. Use of retail agents may also increase the risk that customers will be unable to understand their rights and press claims when aggrieved. Customers are protected against fraud by laws and regulations in the countries studied. But it is not always clear to customers how they will be protected against fraud when they use retail agents to conduct financial transactions. For instance, it might not be obvious whether customers should hold the bank or its retail agents liable if they suffer a loss. Poor, remote, or marginalized people may find it particularly difficult to understand their rights and to press a claim through a court or through the bank's own claims resolution mechanisms.

Anti-money laundering and combating financing of terrorism (AML/CFT). Whenever account opening and transaction processing is outsourced to retail agents, AML/CFT regulations generally require agents to conduct some aspects of customer due diligence and suspicious transaction reporting. The bank bears the risk that customers are improperly identified and that they use the retail agent to launder money or channel funding to terrorists (with or without the retail agent's knowledge or complicity). Outsourcing account opening and retail transaction processing to what may be unsophisticated retail agents also may make it difficult for the bank to observe and report suspicious transactions.

Appendix 2: Balancing AML/CFT/Customer Identification Requirements and Access to Financial Services for the Poor[23].

In many cases, poor customers lack certain documentation—such as identification cards or proof of residence—that is necessary to comply with AML/CFT customer identification requirements. AML/CFT precautions increase costs and, thus, may discourage providers from serving smaller clients. There is a compelling argument that, below certain thresholds, risks for low-value transactions and accounts aren't serious enough to require full-scale AML/CFT measures. Some of the countries studied have amended the rules for low-value transactions or accounts, to strike a balance between the need for effective AML/CFT regulation and the need to ensure poor customers are not excluded from access to financial services as a result.

In **South Africa,** banks and money transfer companies are not required to obtain and verify a customer's income tax registration number and residential address, provided that certain requirements are met (transactions limited to approximately US$800 per day and approximately US$4,000 per month; maximum account balance of approximately US$4,000 at any time; no international transfers, with limited exceptions). However, institutions must still obtain and verify a customer's full name, date of birth, and identity number, using an official identity document for verification. Because approximately 1.5 million eligible South Africans lack such an identity document, the rules still exclude many low-income people from financial services.

In **India**, the central bank has emphasized that AML/CFT requirements should not limit poor customers' access to financial services. For all accounts, identity and address requirements can be met through documentation such as ration cards or letters from public authorities or employers. In addition, for certain low-value accounts (maximum account balance of approximately US$1,100; maximum total annual credit of approximately US$2,300), prospective customers lacking necessary documentation can be introduced by another customer in good standing who was subjected to full "know your customer" procedures and who can confirm the prospective customer's address. Alternatively, for these low-value accounts, banks can accept any form of documentation that satisfies them as to the identity and address of the customer.

In **Brazil**, poor customers must meet the same identification requirements as any other customers. However, customers may open low-value accounts (generally, maximum balance of approximately US$500) using records provided by the National Social Security Institute, as long as all of the necessary identification information is contained in these documents. In addition, customers may temporarily open a low-value account using only their Social Identity Number, but full documentation must be provided within six months, or the account will be closed. This gives agents operating in remote areas more time to submit the required information.

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